

REMARKS

Examiner has rejected claims 1 through 7, 15 through 18 and 26 through 28 under 35 U.S.C. § 102.

Examiner has rejected claims 8 and 19 under 35 U.S.C. § 103.

Examiner has objected to claims 9 through 14 and 29 through 33 as being dependent upon a rejected base claim.

Examiner has indicated claims 20 through 25 are allowable.

Objections to claims 9 through 14 and 29 through 33

Examiner has objected to claims 9 through 14 and 29 through 33 as being dependent upon a rejected base claim, but has indicated these would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant has amended claims 9, 11, 29 through 31 and 33 to overcome the objection.

Rejection under 35 U.S.C. § 102(e)

Examiner has rejected claims 1 through 7, 15 through 18 and 26 through 28 under 35 U.S.C. § 102 (b) as being anticipated by USPN 5,596,712 (Tsuyama). Applicant has amended the independent claims to clarify how the automated trouble shooter uses information obtained by the authoring tool. Applicant respectfully traverses the rejections of claims 1 through 7, 15 through 17 and 26 through 28 and requests reconsideration.

Criteria for a Rejection under 35 U.S.C. § 102

The criteria for a rejection under 35 U.S.C. § 102 has been clearly defined by the courts and confirmed by the U.S. Patent and Trademark Office. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053

(Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Below, Applicant points out subject matter within each independent claim that is not disclosed or suggested by Tsuyama. On the basis of this, Applicant believes the independent claims discussed below and all the claims dependent thereon are patentable over Tsuyama.

Discussion of Independent Claim 1

Claim 1 sets out an authoring tool that assists an author in building an automated troubleshooter for a product. The authoring tool includes three separate editor interfaces that allow an author to place information into three separate data structures.

Specifically, a cause editor interface allows an author to place, in a cause data structure, information pertaining to causes of malfunction of the product. An action editor interface allows an author to place, in an action data structure, information pertaining to actions that can be taken to correct malfunction of the product. A question editor interface allows an author to place, in a question data structure, information pertaining to questions that can be asked a user of the product to help identify causes of malfunction of the product.

Tsuyama does not disclose or suggest such an authoring tool that includes three separate editor interfaces that allow an author to place information into three separate data structures.

Examiner has made the following correlations of the elements of claim 1 to Tsuyama:

Cause editor interface: Tsuyama, column 2, lines 60-63; column 3, lines 17-21

Action editor interface: Tsuyama, column 3, lines 1-2;

Question editor interface: Tsuyama, column 3, lines 1 through 6:

In these sections of Tsuyama, only a single data structure is discussed. Specifically, a fault tree represents past causal relations between faults and causes thereof in a tree structure together with information concerning structure and characteristics of the product. See Tsuyama at column 2, lines 54 through 59.

Likewise, in these sections of Tsuyama, only a single interface is discussed for allowing a user to input information to the fault tree. Specifically, a terminal apparatus is set out that is capable of communicating with the computer for inputting new fault information of the product. See Tsuyama at column 2, lines 60 through 63. Other elements set out in this section (e.g., means responsive to the input; means for generating information; means for supplying information) appear to describe how the system handles information, and does not pertain to information entry to the system by a user.

Since Tsuyama describes only a single data structure and only a single interface for receiving data, it is clear that Tsuyama does not disclose or suggest an authoring tool that includes three separate editor interfaces that allow an author to place information into three separate data structures, as is set out by claim 1 of the present application.

Response to New Arguments Raised by Examiner

Examiner has additionally argued that the cause editor interface reads on the fault diagnosis facility shown in Figure 1 of Tsuyama, that the action editor interface reads on the improvement activities shown in Figure 1 of Tsuyama and that the question editor interface reads on the collecting/analysis facility shown in Figure 1 of Tsuyama.

While the system shown in Figure 1 of Tsuyama is used to diagnose and analyze product troubles, nothing in Figure 1 discloses or suggests an

authoring tool that assists an author in building an automated troubleshooter for a product, as set out in claim 1.

Further, claim 1 sets out that information within the cause data structure, the action data structure and the question data structure are all used by the automated troubleshooter to provide troubleshooting steps to a user of the automated troubleshooter. The troubleshooting steps are steps the user can use to troubleshoot the product. This is not disclosed or suggested by Tsuyama.

Nothing in Tsuyama discloses or discusses an authoring tool acquiring from an author information used by an automated troubleshooter. Tsuyama discloses a system for diagnosis and analysis for products troubles. Tsuyama does not disclose or suggest an authoring tool that assists an author in building an automated troubleshooter for a product, as set out in claim 1.

Discussion of Independent Claim 18

Claim 18 sets out an authoring tool that assists an author in building an automated troubleshooter for a product. The authoring tool comprises a cause editor interface that allows an author to place, in a cause data structure, information pertaining to causes of malfunction of the product. For a cause, the information relates to the following categories: name of the cause, parent of the cause, explanation of the cause, and probability of the cause being source of malfunction.

The information pertaining to the cause additionally relates to the following categories: dependency on environment in which the product is located. This is not disclosed or suggested by Tsuyama.

The specification, in Table 3, at page 19 gives an example of a cause being dependent on environment in which the product is located. Specifically,

Table 3 indicates light print can be caused by environmental conditions such as humidity, temperature, etc.

Information pertaining to the cause relating to dependency on environment in which the product is located is not disclosed or suggested by Tsuyama. Tsuyama discloses a system for diagnosis and analysis for products troubles.

Further, claim 18 sets out that the information within the cause data structure is used by the automated troubleshooter to provide troubleshooting steps to a user of the automated troubleshooter. The troubleshooting steps are steps the user can use to troubleshoot the product. This is not disclosed or suggested by Tsuyama. Tsuyama does not disclose or suggest an authoring tool that assists an author in building an automated troubleshooter for a product, as set out in claim 18.

Discussion of Independent Claim 26

Claim 26 sets out an authoring tool that assists an author in building an automated troubleshooter for a product. The authoring tool includes two separate editor interfaces that allow an author to place information into two separate data structures.

Specifically, a troubleshooter model editor interface allows the author to place in a troubleshooter model structure, information pertaining to malfunction of the product. A library module editor interface allows the author to place in a library data structure information pertaining to modules corresponding with components of the product.

Tsuyama does not disclose or suggest such an authoring tool that includes two separate editor interfaces that allow an author to place information into three separate data structures.

Examiner has made the following correlations of the elements of claim 1 to Tsuyama:

Troubleshooter model editor interface: Tsuyama, column 2, lines 54-63'

Library Module editor interface: Tsuyama, column 13, lines 6-34;

In these sections of Tsuyama, only a single data structure is discussed. Specifically, a fault tree represents past causal relations between faults and causes thereof in a tree structure together with information concerning structure and characteristics of the product. See Tsuyama at column 2, lines 54 through 59.

Likewise, in these sections of Tsuyama, only a single interface is discussed for allowing a user to input information to the fault tree. Specifically, a terminal apparatus is set out that is capable of communicating with the computer for inputting new fault information of the product. See Tsuyama at column 2, lines 60 through 63. Other elements set out in this section (e.g., means responsive to the input; means for generating information; means for supplying information) appear to describe how the system handles information, and does not pertain to place information entry to the system by a user.

Column 13, lines 6 through 34 of Tsuyama discusses software for performing search and analysis. In column 13, lines 6 through 34, various software modules are discussed. However, column 13, lines 6 through 34 do not disclose or suggest a library module editor interface or any other type of interface that allows an author to place information into a library data structure or into any other type of data structure.

Since Tsuyama describes only a single data structure and only a single interface for receiving data, it is clear that Tsuyama does not disclose or suggest an authoring tool that includes two separate editor interfaces that allow an author to place information into two separate data structures, as is set out by claim 26 of the present application.

Further, claim 26 sets out that the information within the troubleshooter model structure is used by the automated troubleshooter to

provide troubleshooting steps to a user of the automated troubleshooter. The troubleshooting steps are steps the user can use to troubleshoot the product. This is not disclosed or suggested by Tsuyama. Tsuyama does not disclose or suggest an authoring tool that assists an author in building an automated troubleshooter for a product, as set out in claim 26.

Rejection under 35 U.S.C. § 103(a)

Examiner has rejected claims 8 and 19 under 35 U.S.C. § 103 (a) as being unpatentable over Tsuyama in view of by USPN 4,965,742 (Skeirik).

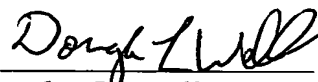
Applicant believes claims 8 and 19 are allowable based on the allowability of their respective underlying independent claims, as discussed above.

Conclusion

Applicant believes that entry of this Amendment will place the present case in condition for allowance and favorable action is respectfully requested.

Respectfully submitted,

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